PERAC

COMMONWEALTH OF MASSACHUSETTS | PUBLIC EMPLOYEE RETIREMENT ADMINISTRATION COMMISSION

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M E M O R A N D U M

TO: Somerville Retirement Board

FROM: Joseph E. Connarton, Executive Director

RE: Funding Schedule

DATE: June 19, 2017

This Commission recently received your request for approval of the revised funding schedule you recently adopted (copy enclosed) based on the results of the January 1, 2017 actuarial valuation. The adopted schedule assumes appropriations will be made on July 1 each year. At this time, we are unable to approve this schedule. We ask that you revisit the adoption of this schedule after reviewing our comments below. Many of our concerns have been previously outlined in our prior funding schedule memorandums.

In each of our last four funding schedule approval memorandums (December 14, 2015, February 18, 2014, September 19, 2011, and August 12, 2009), we outlined and reiterated a number of concerns regarding funding levels and the actuarial assumptions. The most recent valuation does use a more conservative investment return assumption than that of prior valuations. However, we continue to have a number of concerns which we detail below.

Our goal in designing funding schedules is to maintain, as much as possible, budgeted appropriation amounts in both good times and bad. The Chapter 32 systems that have consistently maintained the level of budgeted appropriations each year over the past 25 years generally have the most flexibility, the most conservative funding schedules, and the highest funded ratios.

There was a significant reduction in the schedule adopted by Somerville in 2009 (measured 2 ways, the FY10 appropriation decreased $1.85 million compared to the FY10 amount in the prior schedule at that time or the FY10 appropriation decreased $1.44 million from the FY09 appropriation). Exacerbating the reduction in appropriation, that schedule was based on a January 1, 2008 actuarial valuation which did not yet include the devastating 2008 loss despite the schedule's adoption in 2009 after the impact of the 2008 loss was known. The length of the amortization schedule was extended from 2022 to 2026 as the means of reducing the appropriation level. The reduction in the schedule, in combination with the 2008 loss, has made it more difficult to adopt a subsequent schedule that maintained the same appropriation level as the 2009 schedule and the length of the amortization period was extended again in 2011 from 2026 to 2035.

The Board responded to the concerns outlined in our August 12, 2009 memorandum indicating the funding schedule reduction was not made lightly and the Board "would certainly like to return to the funding levels under the prior schedule (2007) over the next few years". That has not happened. Only the schedule adopted in 2014 increased the level of appropriation compared to the prior schedule. However, the scheduled appropriations under the 2014 schedule were still significantly less than the appropriations in the 2007 schedule. For example, the FY15 appropriation under the 2014 schedule was more than $2 million less than the FY15 appropriation of the 2007 schedule. Furthermore, the FY18 appropriation under the proposed schedule is over $500,000 less than the FY18 appropriation from the 2014 schedule and $1.9 million less than the FY18 appropriation under the 2007 schedule. Other than in 2014, the Board has consistently reduced budgeted amounts since 2009.

Although we acknowledge that the proposed FY18 appropriation of $14.805 million is not a reduction from the FY17 amount of $14.659 million, it is reduction of approximately $307,000 from the FY18 appropriation of $15.112 million outlined in our November 9, 2016 memorandum. In addition, over the next 8 years, each subsequent year is also less than the current schedule by $200,000 to $700,000. By reducing the level of appropriation, the Board has reduced its flexibility in the event of either a market downturn or the adoption of a more conservative assumption set (which we recommend - see below). Once amounts have been removed from a budgeted funding schedule, we have found it is difficult to replace them in future years.

The actuarial assumptions used by Somerville are among the least conservative of any system subject to Chapter 32. The Board did reduce the investment return assumption from 8.25% to 8.0% in this valuation. However, an 8.0% assumption is one of the highest of any Chapter 32 plan. Only 8 other systems use this assumption (and one system uses an 8.25% assumption). We expect those systems using an 8.0% assumption that are performing a valuation in 2017 will likely reduce this assumption. As of January 1, 2013, PERAC reduced its "standard" investment return assumption for local system valuations to 7.75%. In our January 1, 2015 valuations, we generally recommended a further reduction. In our January 1, 2016 valuations, we generally recommended a 7.50% assumption. In our January 1, 2017 valuations we are recommending a maximum 7.50% assumption. There are 94 systems currently with an assumption less than 8.0%. Of these, 57 have an assumption less than 7.75%. We expect more than half of the systems will have adopted an assumption of 7.50% or less after the 2017 valuations are completed.

The 3.0% salary increase assumption is the lowest of any Chapter 32 system. PERAC's current standard assumption (ultimate rate after 10 years of service) ranges from 4.25% for Group 1 members to 4.75% for Group 4 members. Most systems have had gains during recent years based on the PERAC standard assumption as salary increases have been less than assumed, but the salary increase assumption is a long-term assumption. We expect that over the long term this assumption will need to be increased (and/or the investment return assumption decreased) which will increase plan liabilities.

We note that the Board did adopt a fully generational mortality assumption as part of this valuation. A fully generational assumption includes future mortality improvement (longer life expectancy). Currently 99 systems (including Somerville) have adopted such an assumption. The valuation also reflects the adoption of other demographic assumptions based on a recent experience study performed by your actuary. The revised assumptions (and specifically the mortality assumption) are less conservative than the current standard PERAC assumptions, which we continue to believe are reasonable. We have not performed a recent experience analysis for local systems to compare our findings with the results of your study. However, based on our recent analysis of retiree mortality for the State Retirement System and results of our local system valuations, we could not justify the mortality assumption used in your valuation. We hope to complete a review of local system retiree mortality later this year or next year.

The combination of the high investment return assumption, the low salary increase assumption and the revised demographic assumptions provides little conservatism for the System. If the PERAC recommended assumptions were used in the January 1, 2017 valuation, the plan's actuarial liability would likely be roughly 10% greater. This would increase the unfunded liability by approximately $40 million. Our recommended approach is to use a more conservative assumption set, maintain the FY18 appropriation from the current schedule, and increase the appropriations for FY19 and subsequent years by adopting a more aggressive funding schedule. This would likely entail extending the schedule to FY35. We do not recommend extending the schedule beyond FY35 as we believe completing the amortization of unfunded liability by FY35 should be a top priority.
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We understand you will be performing an actuarial valuation again as of January 1, 2018 and may reduce the investment return assumption once again at that time. Although we certainly agree with a further reduction in that assumption, the issues outlined in this memorandum should be considered both now and again at that time. Please indicate to us whether you plan to revisit the decision regarding the adoption of this funding schedule.

We are available to meet to discuss these issues further. If you have any questions, please contact PERAC's Actuary, Jim Lamenzo, at (617) 666-4446, extension 921.

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Appropriation Forecast

Fiscal Year Ending	Employee Contribution	Employer Normal Cost with Interest	Amortization Payments with Interest	Employer Total Cost with Interest	Employer Total Cost % of Payroll	Funded Ratio %**	Unfunded Liability
2018	$6,284,686	$2,301,386	$12,503,950	$14,805,336	20.7	66.1	$133,382,538
2019	$6,606,449	$2,320,306	$12,906,635	$15,226,941	20.5	67.2	$131,058,655
2020	$6,877,129	$2,314,585	$12,700,429	$15,015,014	19.6	68.7	$128,021,994
2021	$7,158,104	$2,306,432	$12,756,127	$15,062,559	19.1	70.1	$124,952,681
2022	$7,449,748	$2,295,707	$13,202,592	$15,498,299	19.1	71.4	$121,716,638
2023	$7,752,448	$2,282,263	$13,664,683	$15,946,946	19.1	72.9	$117,758,582
2024	$8,066,606	$2,265,946	$14,142,947	$16,408,893	19.0	74.5	$113,004,544
2025	$8,392,636	$2,246,596	$14,637,950	$16,884,546	19.0	76.3	$107,374,066
2026	$8,730,968	$2,224,046	$15,150,278	$17,374,324	19.0	78.1	$100,779,672
2027	$9,082,046	$2,198,120	$15,680,538	$17,878,658	19.0	80.2	$93,126,274
2028	$9,446,331	$2,168,638	$16,229,356	$18,397,994	19.0	82.4	$84,310,553
2029	$9,824,300	$2,135,408	$16,797,384	$18,932,792	19.0	84.9	$74,220,270
2030	$10,216,445	$2,098,233	$17,385,292	$19,483,525	18.9	87.5	$62,733,534
2031	$10,623,276	$2,056,905	$17,993,778	$20,050,683	18.9	90.3	$49,718,008
2032	$11,045,323	$2,011,209	$18,623,560	$20,634,769	18.9	93.4	$35,030,042
2033	$11,483,132	$1,960,921	$19,275,384	$21,236,305	18.9	96.6	$18,513,750
2034	$11,937,268	$1,905,805	$0	$1,905,805	1.6	100.0	($0)
2035	$12,408,318	$1,845,617	$0	$1,845,617	1.5	100.0	($0)
2036	$12,896,887	$1,780,102	$0	$1,780,102	1.4	100.0	($0)
2037	$13,283,793	$1,833,505	$0	$1,833,505	1.4	100.0	($0)
2038	$13,682,307	$1,888,510	$0	$1,888,510	1.4	100.0	($0)
2039	$14,092,777	$1,945,166	$0	$1,945,166	1.4	100.0	($0)
2040	$14,515,560	$2,003,521	$0	$2,003,521	1.4	100.0	($0)
2041	$14,951,027	$2,063,626	$0	$2,063,626	1.4	100.0	($0)
2042	$15,399,557	$2,125,535	$0	$2,125,535	1.4	100.0	($0)
2043	$15,861,544	$2,189,301	$0	$2,189,301	1.4	100.0	($0)
2044	$16,337,390	$2,254,980	$0	$2,254,980	1.4	100.0	($0)
2045	$16,827,512	$2,322,630	$0	$2,322,630	1.4	100.0	($0)
2046	$17,332,338	$2,392,308	$0	$2,392,308	1.4	100.0	($0)
2047	$17,852,308	$2,464,078	$0	$2,464,078	1.4	100.0	($0)
2048	$18,387,877	$2,538,000	$0	$2,538,000	1.4	100.0	($0)
2049	$18,939,513	$2,614,140	$0	$2,614,140	1.4	100.0	($0)

** Beginning of Fiscal Year